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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/942,192	08/29/2001	Anand G. Dabak	TI-31597	6981

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EXAMINER	
PHAM, TUAN	
ART UNIT	PAPER NUMBER
2618	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/23/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	09/942,192	DABAK ET AL.	
	Examiner	Art Unit	
	TUAN A. PHAM	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 December 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The Amend of drawing submitted on 12/12/2006 has been considered by Examiner and made of record in the application file.

Specification

2. The Amend of specification submitted on 12/12/2006 has been considered by Examiner and made of record in the application file.

Response to Arguments

3. Applicant's arguments, see Applicant's remark, filed on 12/12/2006, with respect to the rejection(s)of claim(s) 1-4 under 102(e) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made over Gerten et al. (U.S. Patent No.: 6,760,319) in view of Shoobridge et al. (U.S. Patent No.: 6,326,926).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-9, and 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gerten et al. (U.S. Patent No.: 6,760,319, hereinafter, "Gerten") in view of Shoobridge et al. (U.S. Patent No.: 6,326,926, hereinafter, "Shoobridge").

Regarding claim 1, Gerten teaches a piconet, comprising (see figure 1, piconet 12):

first (see figure 1, master unit device 20) and second communication devices (see figure 1, slave unit device 20).

It should be noticed that Gerten fails to teach the first communication device communicating with the second communication device using a Bluetooth mode of transmission and a second mode of transmission. However, Shoobridge teaches the first communication device (see figure 3, figure 5, mobile 100) communicating with the second communication device (see figure 3, in this case the second device is combination of the access point 24b and access point 54b. It is obvious that one skill in the art should recognize that both of the access points 24b and 54b can be make in one unit for support both Bluetooth and IEEE 802.11 protocol) using a Bluetooth mode of

transmission and a second mode of transmission (see figure 3, figure 5, Bluetooth, IEEE 802.11, col.6, ln.59-67, col.7, ln.1-40).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Shoobridge into view of Gerten in order to provide the multi modes system without interference as suggested by Shoobridge at col.2, ln.23-30.

Regarding claim 2, Shoobridge further teaches the second mode of transmission is a higher speed mode than the Bluetooth mode (see figure 3, figure 4, first mode is Bluetooth mode that support 2.4GHz, and second mode is IEEE 802.11 family that support 5.8GHz).

Regarding claim 3, after combine, Gerten teaches the first communication device maintains synchronization between the Bluetooth mode and the second mode (see figure 3, in this case the second device is combination of the access point 24b and access point 54b. It is obvious that one skill in the art should recognize that both of the access points 24b and 54b can be make in one unit for support both Bluetooth and IEEE 802.11 protocol). Shoobridge further teaches physical layer (see col.5, ln.57-60).

Regarding claim 4, Gerten further teaches the first communication device is a master (see figure 1, master device 20).

Regarding claim 5, Gerten teaches a scatternet (see figure 1, col.3, ln.7-10), comprising.

a first piconet having a first communication device operating therein (see figure 1, piconet 14, mobile device 22);

a second piconet having a second communication device operating therein (see figure 1, piconet 12, master mobile device 22), and

a third communication device (see figure 1, master/slave 22), enable to communicate in the first piconet and the second piconet (see figure 1, master/slave 22 communicate with piconet 12, piconet 14), communicating to the first communication device using a Bluetooth mode (see figure 1, master/slave 22 communicate with piconet 12 via Bluetooth).

It should be noticed that Gerten fails to teach the third device is communicating to the second communication device using a second mode of transmission. However, Shoobridge teaches such features (see figure 3, figure 5, mobile 100 communicate with access point 24 b via IEEE 802.11).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Shoobridge into view of Gerten in order to provide the multi modes system without interference as suggested by Shoobridge at col.2, ln.23-30.

Regarding claim 6, Gerten further teaches the third device comprises a slave unit (see figure 1, master/slave device 22).

Regarding claim 7, Gerten further teaches the first and second device comprises master unit (see figure 1, master unit 22 of piconet 12).

Regarding claim 8, Gerten further teaches the third device comprises a device which acts as a master unit when communicating with the first communication device

and acts as a slave unit when communicating with the second communication device (see figure 1, mater/slave device 22).

Regarding claim 9, Shoobridge further teaches synchronization between the Bluetooth mode and the second mode is maintained in the third communication device at the physical layer of the Bluetooth mode and the second mode (see figure 3, figure 5, mobile 100, first AP 54b, second AP24b).

Regarding claim 14, Gerten further teaches the second communication device is a slave unit (see figure 1, piconet 10, slave 20).

Regarding claim 15, Gerten further teaches the third communication device is a slave unit (see figure 1, master/slave unit 22).

Regarding claim 16, Gerten further teaches the first communication device is a master unit (see figure 1, master unit 24 in piconet 14).

Regarding claim 17, Gerten further teaches the second communication device is a master unit (see figure 1, master/slave unit 22 of piconet 12).

Regarding claim 18, Gerten further teaches the third communication device is a slave unit while communicating in the first piconet and is a master unit while communicating in the second piconet (see figure 1, master/slave unit 22, second piconet 12, first piconet 14).

Regarding claim 19, Gerten further teaches the first communication device is a master (see figure 1, master unit 24 in piconet 14).

Regarding claim 20, Gerten further teaches the second communication device is a slave unit (see figure 1, mobile unit 22).

6. Claims 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gerten et al. (U.S. Patent No.: 6,760,319, hereinafter, "Gerten") in view of Cannon et al. (U.S. Patent No.: 6,650,871, hereinafter, "Cannon").

Regarding claim 10, Gerten teaches a method for communicating between a first communication device, enable to communicate in a first piconet and a second piconet, and a plurality of other communication devices including a Bluetooth mode of operation (see figure 1, Bluetooth devices 22, master/slave mobile 22, piconet 12, piconet 14), comprising the steps of:

placing the first communication in the Bluetooth mode in order to communicate with a communication device from amongst the plurality of communication devices in the first piconet (see figure 1, master/slave 22 communicate with plurality mobiles 22 in the piconet 14).

It should be noticed that Gerten fails to teach a multiple modes device, and placing the first communication device in a second mode in order to communicate with a communication device from amongst the plurality of communication devices. However, Cannon teaches a multiple modes device (see base unit 100a), and placing the first communication device (see figure 1; base unit 100 a) in a second mode (900 MHz) in order to communicate with a communication device from amongst the plurality of communication devices in the second piconet (see figure 1, base unit 100b, piconet B, plurality of mobiles 120-124, col.3, ln.39-67, col.4, ln.1-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Cannon into view of Gerten

in order to provide a low cost Bluetooth device as suggested by Cannon at col.1, ln.54-60.

Regarding claim 11, Gerten further teaches first communication device in step (b) uses a "within mode synchronous" technique while in the second mode whereby the packets used to communicate with the communication device from amongst the plurality are only synchronous while the first communication device is in the second mode (see figure 1, col.1, ln.45-60).

Regarding claim 12, Gerten further teaches the first communication device uses packets to communicate with the communication devices in step (a) and (b) which are "across mode synchronous" (see figure 1, col.1, ln.45-60).

Regarding claim 13, Cannon further teaches the communication device that the first communication device communicates with in step (a) and (b) is the same communication device from amongst the plurality of communication devices (see figure 1, base unit 100a, remote handset 102a, 102b, base unit 100b, col.3, ln.39-67, col.4, ln.1-67).

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan A. Pham whose telephone number is (571) 272-8097. The examiner can normally be reached on Monday through Friday, 8:30 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Anderson can be reached on (571) 272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have question on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit 2618
February 11, 2007
Examiner

Tuan Pham

Supervisory Patent Examiner
Technology Center 2600

Matthew Anderson